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(54) Title: MELANOCYTES IN THERAPY OF NEURODEGENERATIVE DISEASES

(57) Abstract: The present invention relates to an in vitro cultivation method for producing human melanocytes which are capable of melanin and/or L-dopa synthesis, and to various uses of said melanocyte(s). In one preferred aspect, the invention relates to the use of said melanocyte(s) in an autologous implantation method in a patient suffering from a neurodegenerative disease, e.g. Parkinson's disease. The invention also relates to a screening method comprising melanocyte(s) from said cultures, wherein substances are screened for which may in any way effect said melanocyte(s). Said substances may e.g. be neurotoxic, neuroprotective, or particularly lethal to melanocytes obtained from a patient suffering from Parkinson's disease. The present invention also relates to other uses of said melanocytes, all which are disclosed herein.